STP (FFY2020-2024) Program Application Booklet

Draft for Discussion 8/8/2018

Contents

Introduction	2
Eligible Applicants and Projects	2
Eligible project types	2
Rolling focus for STP funding	3
Eligible Project Phases and Required Match	4
Phase I Engineering	4
Remaining Phases	4
Local Match	4
Project Selection Process	5
Project Readiness	6
Engineering and Right of Way Acquisition	
Inclusion in Local/Agency Plans	6
Financial Commitment	6
Transportation Impact	6
Existing Condition/Need	7
Improvement	8
Household/Job Impact	10
Planning Factors	10
Inclusive growth (all project types)	10
Complete streets (all project types)	11
Green infrastructure (grade crossings, truck route improver road expansions)	
Freight movement (road expansions, road reconstructions, and safety projects)	e
Transit-supportive land use (transit stations and bus route	improvements)12
Bonus	14
Solastion Process Timeline	Error Rookmark not defined

Introduction

- 2 The Chicago Metropolitan Agency for Planning (CMAP), the metropolitan planning
- 3 organization for the seven counties of northeastern Illinois, announces the availability of
- 4 funding for transportation projects through the STP Shared Fund. This program is funded
- 5 through the Federal Highway Administration (FHWA). The STP Shared Fund is designed to
- 6 fund important regional projects that address regional performance measures and the goals of
- 7 ON TO 2050.

Eligible Applicants and Projects

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Projects eligible for the STP Shared Fund make large and lasting contributions to regional transportation priorities. The intention of the fund is also to encourage collaboration between municipalities and advance projects that local councils cannot readily fund on their own. Given these goals, projects must meet one of two eligibility requirements:

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Joint application from at least 3 local partners, including at least one municipality

OR

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Total project cost of \$5 million or more

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For the STP Shared Fund, eligible sponsors or partners include any state agency or unit of government having the authority to levy taxes. Sponsors include but are not limited to municipalities, counties, townships, park districts, forest preserve districts, and transit agencies.

municipalities, counties, townships, park districts, forest preserve districts, and transit agencies.
Partners must demonstrate financial or in-kind project involvement. Private for-profit and non-

23 profit organizations may partner with a public sponsor that meets the previously stated

conditions, but may not submit applications or act as the lead agency for project

25 implementation.

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Eligible project types

While STP has very broad eligibility in comparison to other funding sources (CMAQ, TAP, HSIP), the STP shared fund is targeted toward the following priority project types:

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• Road reconstructions

Projects that address condition deficiencies on the road network and do not add roadway capacity

• Transit station rehabilitation/reconstructions

Projects that enhance the existing transit system by improving or reconstructing transit stations

• Bridge rehabilitation/reconstructions

Projects that address condition deficiencies on the region's bridges

• Highway/rail grade crossing improvements

Projects that reduce delay at highway/rail crossings, through grade separation or other improvements

• Road expansions

Projects that add capacity to an existing road or involve construction of a new road

- **Bus speed improvements**Projects that improve the speed and reliability of bus travel in the region
 - Corridor-level or small area safety improvements
 Projects that address safety issues
 - Truck route improvements

 Projects that improve truck movement through a corridor or area

These project types were chosen because of demonstrated demand in the form of unfunded or partially funded local projects, stakeholder input, ON TO 2050 implementation priorities, and an assessment of opportunities to leverage or fill gaps between other available fund sources.

Rolling focus for STP funding

 The 2019 call for projects for the shared fund will be used to build a full five-year program (FFY 2020-2024), and projects in all priority project types are encouraged to apply. Subsequent semiannual calls will be to fill the out years of the program. Given the limited funding available in future calls and wide range of eligible project types, future calls will focus on a subset of project types (see the table below).

	First call (2019)	Second call (2021)	Third call (2023)	Fourth call (2025)	
		Draft: update based on outcome of first call for projects			
Program years:	2020-2024	2025-2026	2027-2028	2029-2030	
Focus areas:		Grade crossing improvements	Road expansion	truck route improvements	
	ALL FOCUS AREAS ELIGIBLE	Road reconstruction	Bridge replacement/ reconstruction	Road reconstruction	
		Bus speed improvements	Corridor/small area safety improvements	Transit station improvement	

Eligible Project Phases and Required Match

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qualify as match.

Phase I Engineering 66 67 Phase I engineering will be the responsibility of the project sponsor to complete without 68 funding from the STP Shared Fund. With limited exceptions, all other phases -- including phase 69 II engineering, right-of-way acquisition, and construction (including construction engineering) -70 - are eligible for STP Shared Fund funding. Sponsors may request STP Shared Fund funding for 71 phase I engineering based on a hardship. If phase I engineering funding is sought, funding for 72 the later phases of the project cannot be requested until the next call for projects, and such 73 funding is not guaranteed. Sponsors seeking funding for phase I engineering should contact 74 CMAP staff before doing so. Hardship is determined from an evaluation of municipal median 75 income, tax base per capita, total tax base, and population. A list of municipalities meeting the 76 phase I engineering hardship exemption is available at k to be added>. 77 Remaining Phases 78 79 All eligible phases will be programmed at a maximum level of 80 percent federal funding for 80 STP Shared Fund funding. 81 For projects requiring phase I engineering, one of the following must occur by June 1, 2019: 82 83 a. Design approval has been received. 84 b. IDOT has certified that a final Project Development Report has been submitted 85 for signatures. 86 c. IDOT has certified that a preliminary Project Development Report has been 87 received with an accurate cost and clear scope established. 88 For transit station improvement projects, the sponsor must demonstrate that sufficient 89 engineering and/or architectural work has been completed to establish accurate costs and a clear 90 scope. 91 92 Local Match 93 The sponsor must have already committed matching funds when the project is submitted. 94 Proposals which indicate that the sponsor will pay more than the minimum local match will 95 receive points as part of the project readiness portion of the scoring process (see below). Local 96 match is a minimum of 20 percent of the total funds being requested. The local match does not

necessarily have to be provided directly by the sponsor but it must be a non-federal source to

Project Selection Process

The program of projects selected by the STP Project Selection Committee will consider the results of the project evaluation in three categories: project readiness, transportation impact, and planning factors (see table below). Programmed projects will be subject to Active Program Management procedures (detailed separately)

	Project readiness			Trans	Transportation impact		Planning factors				
											transit
	Engineering/ROV			current		Jobs/housing	green			*	supportive
Project types	completion	in plans	commitments	condition/need	improvement	benefit	infrastructure	movement	growth	streets	density
Highway/rail											
grade crossing				_			5	-	10	10	-
improvements											
Truck route							5	_	10	10	_
improvements							3		10	10	
Road							5	5	10	5	_
expansions							3	3	10	3	
Road							5	5	10	5	_
reconstructions							3		10		_
Bridge rehab/							_	5	10	10	_
reconstructions	10	10	5	20	20	10	_	3	10	10	_
Corridor-level											
or small area							_	5	10	10	_
safety								3	10	10	
improvements											
Transit station											
rehab/							-	-	10	5	10
reconstructions											
Bus											
speed/reliability							-	-	10	5	10
improvements											
	Max	ximum: 2	5	M	laximum: 50			Max	cimum: 2	25	
	Total: 100 + Council/CDOT support bonus										

Project Readiness

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- 104 CMAP and partners are committed to timely obligation and completion of projects to protect
- the region's funding from lapse and rescission, and deliver on the significant transportation
- benefits of selected projects. The Active Program Management policies provide a framework for
- strong project and program management of selected projects, and the evaluation process for
- 108 Shared Fund projects complements these policies by awarding points to projects that
- demonstrate financial commitment, local planning, and engineering work.

Engineering and Right of Way Acquisition

- 111 Projects can receive up to 10 points, 5 if they demonstrate substantial completion of phase II
- engineering and 5 for the completion or lack of need for right of way acquisition. Sponsors need
- 113 not have submitted pre-final plans to IDOT, but should be able to demonstrate that engineering
- is 85%-90% complete.

Inclusion in Local/Agency Plans

- Projects can receive up to 10 points if they are included in local or agency plans. Acceptable
- plans include long range transportation plans, ITS plans, transit agency long range plans,
- capital improvement plans, and other local planning efforts, including those completed with
- 119 CMAP LTA assistance. Projects receive 7 points if they are specifically named in the plan, and 3
- points if the plan offers more general support for the project type.

Financial Commitment

- 122 Projects can receive up to 5 points in this category based on their demonstrated leveraging of
- other funding sources. Points are awarded as follows to projects based on the amount of
- funding requested from the shared fund as a percent of federally-eligible share of the total
- 125 project cost:

126	Less than 20%	5 points
127	20%-40%:	4 points
128	40%-60%:	3 points
129	60%-80%:	2 points
130	80%-100%:	1 point

Transportation Impact

- 133 A project's transportation impact score is worth 50% of the total project score, and measures the
- existing condition of the transportation asset or need for the project, the cost effectiveness of the
- improvement that would be made by the project, and the number of households and jobs that
- could benefit from the project's completion.

Existing Condition/Need

- Each project will receive an existing condition/need score on a scale of 0 to 20. Each project type
- will have a different measure of project need, but all will be converted to a 20 point scale for the
- purposes of analysis. Scores will be calculated as follows:

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- 142 Transit station reconstructions/rehabs
- 143 The existing condition score will be the cost-weighted average <u>Transit Economic Requirements</u>
- 144 <u>Model (TERM)</u> condition score of station components, converted to a 20 point scale. For station
- reconstructions that increase passenger area, 25% of this score will be based on the extent of the
- existing capacity constraint.

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- 148 Bus speed improvements
- 149 The existing condition score will measure the current on-time performance of bus routes being
- improved as well as the difference between bus travel time and auto travel time on the road(s)
- being improved. Both factors are worth 50% of the score.

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- 153 Bridge reconstruction
- 154 The existing condition score will be the sufficiency rating calculated by the National Bridge
- 155 Inventory, converted to a 20 point scale.

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- 157 Rail-Highway grade crossing
- 158 The existing condition score will be the project's score from the total points from the Grade
- 159 Crossing Screening Level 2 evaluation (currently being finalized, see current data here),
- 160 converted to a 20 point scale.

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- 162 Corridor/Small Area Safety
- 163 The safety need score is calculated using IDOT's safety road index (SRI) for roadway segments
- and intersections. The SRI score is based on the location's Potential for Safety Improvement
- 165 (PSI) score. IDOT developed SRI scores for local and state routes and categorized them by peer
- group into critical, high, medium, low, or minimal. Within each peer group, locations
- categorized as critical have the highest PSIs, and locations categorized as minimal are less likely
- to have safety benefits from treatments. The proposed project's safety need score will be the
- highest SRI category along the project location. This will include both segment and intersection
- 170 locations.

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- Road reconstructions, expansions and truck routes
- 173 The road reconstructions and expansions need score will be calculated in a similar method to the
- highway needs score for regionally significant projects in ON TO 2050. This score incorporates
- information about pavement condition, safety, reliability, and mobility. Pavement condition is
- the length weighted average of either the road's Condition Rating Score (CRS) or international
- 177 roughness index (IRI), depending on data availability. Mobility is the length weighted average of
- the travel time index (the ratio of peak period travel time to free flow travel time) and the number
- of at least lightly congested hours of traffic per weekday. Reliability is measured by the length-
- weighted average of the planning time index (95th percentile travel time divided by free flow

travel time). The safety score will be calculated using IDOT's safety road index (SRI). Weights for these factors will be as follows:

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	road reconstruction	road expansion
condition	50%	15%
mobility	10%	30%
reliability	20%	30%
safety	20%	25%

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The truck routes need score will be calculated in a similar method to the road reconstruction and expansion score, with the addition of a length weighted average of truck volumes. All factors are weighted equally.

Improvement

- 189 Improvement will be calculated as the cost effectiveness of the proposed improvements
- involved in the project. Improvements will be indexed on a scale of 0-20 within project type.
- 191 Total project cost will be used to evaluate cost effectiveness. The improvements for each project
- 192 type will be calculated as described below:

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Transit station reconstructions/rehabs

- 195 The difference in cost-weighted average <u>Transit Economic Requirements Model (TERM)</u>
- 196 condition score of station components before and after the project. For station reconstructions
- 197 that increase passenger area, 25% of this score will be based on the extent that the project
- 198 addresses an existing capacity constraint.

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Bus speed improvements

The improvement to on-time performance of bus routes being improved as well as the change in the bus-auto travel time differential. Both factors are worth 50% of the score.

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Bridge reconstruction

The bridge sufficiency rating, adjusted based on the type of work being done and the functional class of the road. Adjustment factors based on <u>IDOT's major bridge program</u>.

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Rail-Highway grade crossing

The improvement to delay and safety as a result of the project.

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Corridor/Small Area Safety

- 212 This score is based on the improvement of the project and the planning level expected safety
- benefit (reduction of crashes) after implementing the improvement. The planning level safety
- 214 improvement score is modeled after the <u>SMART SCALE Safety Factor Evaluation</u> method
- 215 developed by the Virginia Department of Transportation (VDOT). Similar to VDOT's method,
- 216 CMAP staff will develop a list of common improvement types (countermeasures) and the
- 217 accompanying planning level CRFs. The planning level CRFs will be developed using
- 218 information from IDOT, Crash Modification Clearinghouse, and Highway Safety Manual.
- 219 CMAP staff will review project details to determine the relevant countermeasure and the

assigned planning level CRF for that countermeasure. If multiple countermeasures are part of the project, CMAP staff will take the maximum planning level CRF for the project.

Road reconstructions, expansions, and truck routes

Ten of the improvement points for road reconstructions and enhancements will come from improvements to the condition in the case of road reconstructions and mobility in the case of expansions. Projects can also receive a maximum of ten points if the project has any of the following characteristics or helps implement any of the following as part of a larger program:

Systematic Improvements	Score
Integrated Corridor Management	5
Work zone management (traveler information improvements)	5
Truck travel information systems	4
Strategies to improve transit on-time performance	4
Ramp metering	4
Road weather management systems	2
Special event management	3
Traffic signal interconnect	4
Adaptive signal control	5
Incident Detection:	
	1
Traffic Management Center (TMC) to TMC Communications	4
Computer-aided dispatch (911 call center) to (TMC) communications	4
Extension or improvement of real-time traffic surveillance on regional	3
expressways and tollways, including video and detectors	3
Integration of real-time probe data into incident detection procedures Establishment of detector health program	3
Establishment of detector health program	3
Incident Response:	
Expansion of response operations capabilities (e.g., minutemen)	5
Dispatch improvements, including center-to-operator and supervisor-to-	
operator communications (including supervisor-bus communications)	4
Response equipment (e.g., minuteman vehicles)	4
Incident Recovery:	
Expediting coroner's/medical examiner's accident investigation process	5
Dynamic message signs (DMS, multiple, including arterial DMS)	3
Incident-responsive ramp meters	3
Speed Management Systems	2
On-scene communication, coordination, and cooperation	2
Development and improvement of highway closure detour routes	2

Household/Job Impact

The benefits of a transportation project often cross municipal and county borders, and can provide significant improvements to people who are not located in the project's immediate vicinity. For each project, CMAP uses the travel model to generate a travel shed of the places people come from and go to using the facility. The score in this category is calculated by adding up the total number of jobs and households in each project's travel shed and converting the total to a score out of 10, indexed to the other submitted projects

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Planning Factors

In addition to the transportation benefits and readiness scores explained above, all projects are evaluated on their support for regional priorities, identified as part of <u>ON TO 2050</u>, the region's long range comprehensive plan.

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Inclusive growth (all project types)

Long-term regional prosperity requires economic opportunity for all residents and communities. <u>Inclusive growth</u>, one of the ON TO 2050 plan principles, focuses on strategies, including transportation investments, that can increase access to opportunity for low income residents and people of color, and help the region to be stronger and more successful economically.

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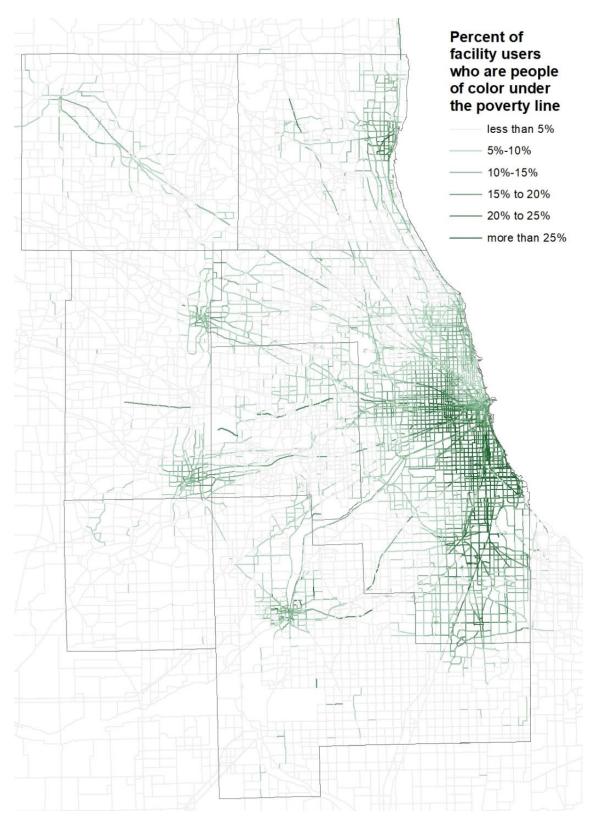
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All projects are evaluated based on the percent of travelers using a facility that are people of color below the poverty line, as modeled by the CMAP travel demand model. Projects can receive a maximum of 10 points, which are awarded as follows (also see draft map below, which shows both roads and facilities):

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256 Percent of facility users who are nonwhite and under poverty line 257 0%-5% 0 points 258 5%-10%: 2 points 259 10%-15%: 4 points 260 15%-20%: 6 points 261 20%-25%: 8 points 262 25% or more: 10 points

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Complete streets (all project types)

One of ON TO 2050's recommendations is to <u>support development of compact, walkable</u> <u>communities</u>. Complete streets policies require streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for all anticipated

roadway users, regardless of their age, abilities, or mode of travel. The adoption of complete streets policies and incorporation of complete streets design elements into all projects is encouraged. A project receives half of the points in this category if the project sponsor has adopted complete streets policies, and the other half if the project contains complete streets elements. For more information about complete streets policies and project design, see the CMAP complete streets toolkit. Transit station, bus speed improvement, road reconstruction, and road expansion projects can receive a total of 5 points in this category (2.5 from policies, 2.5 from project elements), while grade crossings, bridge reconstructions, safety projects, and truck routes can receive a maximum of 10 points (5 from policies, 5 from project elements)

Green infrastructure (grade crossings, truck route improvements, road reconstructions and road expansions)

Implementing green infrastructure as part of transportation investments can help achieve a number of regional priorities, including reducing flooding, improving water quality, and mitigating the urban heat island effect. The maximum score in this category is 5 points, 2.5 if sponsors have implemented policies that support green infrastructure, 2.5 if the project has green infrastructure components.

Freight movement (road expansions, road reconstructions, bridge rehab/reconstructions, and safety projects)

Maintaining the region's status as North America's Freight hub is one of the recommendations of ON TO 2050. While some of the shared fund priority project types are specifically aimed at improving freight movement in the region (rail-highway grade crossings, and truck route improvements), other project types can also have substantial freight benefits. Projects receive points in this category as follows based on the truck volume on the road segment:

294	Percent heavy duty vehicles:	
295	0%-2%	0 points
296	2%-4%:	1 points
297	4%-6%:	2 points
298	6%-8%:	3 points
299	8%-10%:	4 points
300	10% or more:	5 points

Transit-supportive land use (transit stations and bus route improvements)

ON TO 2050 includes the recommendation to <u>make transit more competitive</u>. Transit agencies cannot sustain fast, frequent, reliable service without accompanying supportive land use changes. Transit investments receive points if they are located in areas where zoning and urban design requirements are transit-supportive. This will be scored as follows:

Max Score	Criteria
7	Up to 4.5 points will be awarded based on the permitted density for
	residential and non-residential land uses within one-half mile of the transit
	station. If more than one residential or non-residential classification is zoned

Max Score	Criteria					
	within the station area, points will be assigned to the classification with the					
	highest permitted density.					
	Points will be assessed based on both residential and non-residential					
	densities	s. If the two categories	yield different point t	otals, the average of	the	
	two poin	nt totals will be awarde	d.			
	Permitte	ed Densities:				
	Residential Non-Residential Points					
		(DU/buildable acre)	(Building Height*)			
		< 6	1 story (12 ft.)	0		
		> 6 and ≤ 10	2 story (24 ft.)	1.0		
		$> 10 \text{ and } \le 16$	3 story (36 ft.)	2.0		
		> 16 and ≤ 24	4 story (48 ft.)	3.0		
		> 24	> 4 story (> 48 ft.)	4.5		
		*Building height give	n in feet based on 12 f	eet per story.		
			AND			
	Up to 2.	5 points will be awarde	d based on innovativ e	e parking		
	requirer	nents, which supports	denser development b	by increasing space		
	available	e for other uses (one po	int for each strategy ir	nplemented):		
	Reduced minimum parking requirements					
	Enacted maximum parking requirements					
	Shared parking permitted In liquiparking foos permitted					
		In-lieu parking fees permittedEnacted bicycle parking requirements				
				rneath buildings		
2.0	Off-street parking is permitted off-site Up to 3 points will be awarded for the presence of mixed-use zoning within.					
3.0	Up to 3 points will be awarded for the presence of mixed-use zoning within					
	one-half mile of transit project (1 point for each strategy implemented):					
	. 7	Zoning allows vertical n	niving of uses le gore	sidential units ahove	٠	
		ground-level retail or of		sideritial arms above	•	
		Zoning allows pedestria	•	ıd uses (e.g., drugsto	res.	
		groceries, dry cleaning,	•			
	_	etc.).	,, 8,	,,	,	
	 Zoning excludes car-dependent land uses (e.g., drive-through stores, 					
		strip malls, etc.).		,,		
		- /				
	Commu	nities that have implem	nented form-based cod	les may require		
	addition	al qualitative analysis f	from CMAP staff to er	nsure their zoning me	eets	
	the abov	ve standards.				

Bonus

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Each council and CDOT will have 25 points to allocate amongst the submitted projects to indicate local support and priorities. No project may receive more than 15 of any one council or CDOT's points, but collaboration amongst councils is encouraged. Councils may give bonus points to projects outside their jurisdiction up to a maximum of 25 total bonus points for any one project. Councils and CDOT must submit allocations of bonus points to CMAP by a deadline yet to be determined, but in advance of the release of initial evaluation results.

